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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,072	02/11/2004	Magnus Fagrell	6796-000010/US/DVB	3314
36593 7590 07/10/2008 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195				
EXAMINER				
WONG, EDNA				
ART UNIT		PAPER NUMBER		
1795				
MAIL DATE		DELIVERY MODE		
07/02/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/775,072

Applicant(s)

FAGRELL, MAGNUS

Examiner

EDNA WONG

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

This is in response to the Amendment After Final dated June 17, 2008. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

The finality of the rejection of the last Office action is withdrawn in view of the new grounds of rejection.

Response to Arguments

Double Patenting

Claims **4-9** have been rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims **14-18** of U.S. Patent No. **6,403,939 B1** (Fagrell).

The rejection of claims 4-9 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 14-18 of U.S. Patent No. 6,403,939 B1 (Fagrell) is as applied in the Office Actions dated November 16, 2007 and April 30, 2008 and incorporated herein. The rejection has been maintained for the following reasons:

The Terminal Disclaimer dated June 17, 2008 was disapproved by paralegal Jean Proctor. She indicated that a fee was due in an Internal Document dated June 26, 2008.

Claim Rejections - 35 USC § 103

I. Claims **4-8** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **WO 91/12888** ('888) in combination with **Collins** (US Patent No. 3,281,648).

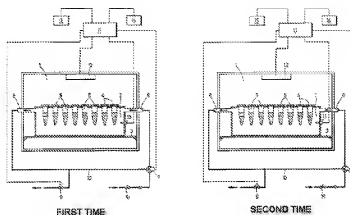
The rejection of claims 4-8 under 35 U.S.C. 103(a) as being unpatentable over WO 91/12888 ('888) in combination with Collins is as applied in the Office Action dated April 30, 2008 and incorporated herein. The rejection has been maintained for the following reasons:

Applicant states that based on the suggested advantages of one magnetron tube, one chamber apparatus in WO '888, it would not have been obvious to duplicate the disclosed apparatus.

In response, the examiner maintains that the repetition of steps to provide the same results is well within the skill of one having ordinary skill in the art. The concept of duplication is not patentable. WO '888 does not criticize, discredit or otherwise discourage performing the process a second time which happens to be performed simultaneously with a first time.

Applicant states that the apparatus of WO '888 does not individually and independently control two generators based on control signals from two applicators.

In response, when one having ordinary skill in the art performs the process disclosed by WO '888 a second time, which happens to be performed simultaneously with a first time, it would look like this:



This would be performing a side by side routine experimentation.

With two separate performances, there would have been individual and independent control of two generators based on two control signals from two applicators.

The control unit controls a magnetron tube **12** mounted in the chamber **1** for generating microwave radiation in the chamber **1** to heat directly the samples contained in the reaction vessels **5** (page 3, lines 35-39).

II. Claim **9** has been rejected under 35 U.S.C. 103(a) as being unpatentable over **WO 91/12888** ('888) in combination with **Collins** (US Patent No. 3,281,648) as applied to claims 4-8 above, and further in view of **WO 95/27387** ('387).

The rejection of claim **9** under 35 U.S.C. 103(a) as being unpatentable over **WO 91/12888** ('888) in combination with **Collins** as applied to claims 4-8 above, and further in view of **WO 95/27387** ('387) is as applied in the Office Action dated April 30, 2008

and incorporated herein. The rejection has been maintained for the reasons discussed above.

Applicant's remarks have been fully considered but they are not deemed to be persuasive.

Response to Amendment

Claim Rejections - 35 USC § 103

Claims **4-6 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chitre et al.** (US Patent No. 4,687,895) in combination with **Greene et al.** (US Patent No. 6,175,104 B1).

Chitre teaches a method of performing a plurality of chemical reactions simultaneously, said method comprising:

- (a) providing a first sample **163** (= a first object) into a first applicator **11** (= a second microwave cavity),
- (b) providing a second sample **163** (= a second object) into a second applicator **11** (= a first microwave cavity) [col. 11, lines 31-33],
- (c) applying electromagnetic radiation (col. 12, lines 9-14) to the first sample in the first applicator **11** from a first generator **75** (= each microwave cavity **11** is provided with its own magnetron power supply **75**) [col. 7, lines 20-23], the first generator being capable of generating electromagnetic radiation at a plurality of frequencies (= the magnetron power supply),

(d) applying electromagnetic radiation (col. 12, lines 9-14) to the second sample in the second applicator **11** from a second generator **75** (= each microwave cavity **11** is provided with its own magnetron power supply **75**), the second generator being capable of generating electromagnetic radiation at a plurality of frequencies (= the magnetron power supply) [col. 7, lines 20-23], and

(e) individually controlling the electromagnetic radiation applied to the first and second applicator (= the duty cycle of the magnetron power supply **75** is automatically regulated to maintain that temperature) [col. 7, lines 34-36] by individually and independently controlling the first and second generators in response to control signals from the first and second applicators (= thermal sensor means for selectively detecting the thermal environment within each of said cavities, said first control means being responsive to said detected thermal environment) [col. 15, lines 8-13].

The applied electromagnetic radiation is within the range of 300 MHz-300 GHz (col. 1, lines 57-60).

The electromagnetic radiation applied to the first and second sample has essentially the same frequency and essentially the same power level so as to expose the first and second sample to essentially the same conditions (= which may or may not be equal to the temperature desired in any of the other microwave cavities **11**) [col. 11, lines 37-42].

The plurality of chemical reactions are conducted in an apparatus including at least one guide **77** for guiding at least part of the electromagnetic radiation from the first

generator to the first applicator (= a waveguide **77** which extends from the magnetron **14** to beneath the bottom of microwave cavity **11** couples the power from the magnetron **133** to the microwave radiating antenna **69**) [col. 7, lines 11-15], and a controller **25** for individually controlling each of the first and second generators (= using controls on control panel **25**) [col. 7, lines 19-20].

The method of Chitre differs from the instant invention because Chitre does not disclose the following:

- a. Wherein the first generator is a first semiconductor based generator, as recited in claim 4.
- b. Wherein the second generator is a second semiconductor based generator, as recited in claim 4.

Chitre teaches magnetrons (col. 7, lines 20-21).

Like Chitre, Greene teaches microwave enhancement of physical and chemical reactions (col. 1, lines 5-6). Greene teaches a microwave source selected from the group consisting of magnetrons, klystrons, switching power supplies, and solid-state sources (col. 3, lines 22-26).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the first and second generators described by Chitre with wherein the first generator is a first semiconductor based generator; and wherein the second generator is a second semiconductor based generator because

solid-state sources would have been functionally equivalent sources of generating the microwave energy as taught by Greene (col. 3, lines 22-26).

Citations

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Greene et al. (US Patent No. 6,084,226) is cited to teach a method of using continuous variable power to drive chemical reactions more successfully (col. 1, lines 6-9).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDNA WONG whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edna Wong/
Primary Examiner
Art Unit 1795

EW
June 29, 2008